

### **ABSTRACT**

A distance measuring system includes a housing with at least one surface, at least one switch along the one surface of the housing, an energy system in the housing, and a distance computation system coupled to the energy system. The

5 switch has an inactivated position and an activated position when pressed against an origination object. The activated position of the switch identifies the surface as a reference plane with respect to the origination object. The energy system transmits energy towards a target when the switch is in an activated position and receives at least a portion of the energy which is reflected back from the target.

10 The distance computation system uses the received portion of the energy which is reflected back and the identification of the surface as the reference plane to determine a distance from the origination object to the target.